Clinical analysis of selective fetocide in dichorionic twin pregnancy following IVF procedure in the second trimester of pregnancy

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Objective
To evaluate the method of selective fetocide in dichorionic twin pregnancy discordant for anomalies following IVF procedure in the second trimester and to evaluate the clinical outcome of the remaining normal fetus and improve prenatal management in twin pregnancy.

Methods
Four cases of IVF dichorionic twin pregnancy with selective fetocide in the second trimester (14-22 weeks) were included. In all cases selective fetocide was performed in our Prenatal Diagnosis Center and fetuses were delivered in our hospital. Following aspects were analysed: type of malformation in the abnormal twin, the gestational age at the time of selective fetocide, position of the malformed fetus, cervical length, clinical outcome after selective fetocide and Apgar score at birth. Findings were summarized and analyzed in our Prenatal Diagnosis Center.

Results
Procedure of selective fetocide in all four cases was uncomplicated and the remaining normal fetuses were born in excellent condition. Selective fetocide was performed under ultrasound guidance in the second trimester (14-22 weeks). Fetal abnormalities included: one case of trisomy 21, two cases of structural defects and one case of severe thalassemia.

Conclusion
In our series chromosomal defects, structural defects and thalassemia remain main indications for selective fetocide in IVF diachronic twins. The procedure of selective fetocide in dichorionic twins can be successfully carried out using potassium chloride in the second trimester (14 - 22 weeks). Selective fetocide is an effective management of dichorionic twin pregnancies discordant for major defects.